Claims

1. A process for oxidizing an aqueous phase comprising ferrocyanide (V) which is recovered from an oxidative phenolic coupling reaction, to an aqueous phase comprising ferricyanide (IV), in a divided electrochemical cell, comprising

   - preparing an anolyte comprising pretreating the aqueous phase comprising ferrocyanide (V) which is recovered from an oxidative phenolic coupling reaction by decantation or extraction or filtration;

   - placing the anolyte in contact with an anodic electrode of the divided electrochemical cell;

   - placing a catholyte in contact with a cathodic electrode of the divided electrochemical cell;

   - and applying electrical power to the divided electrochemical cell, wherein the electrical power has an amperage or voltage and wherein the applying is for a time period sufficient to oxidize the ferrocyanide (V) to ferricyanide (IV).

2. The process of claim 1 wherein the divided electrochemical cell is divided by a cation selective membrane.

3. The process of claim 2 wherein the cation selective membrane is a Nafion® perfluorinated polyethylene sulfonic acid membrane.

4. The process of claim 1 wherein the pre-treatment of the aqueous phase comprising ferrocyanide (V) which is recovered from an oxidative phenolic coupling reaction comprises
storing said aqueous phase at 60°C or more during a period of time sufficient to let precipitate suspended particles and decanting the supernatant aqueous phase so as to separate it from the precipitated particles.

5. The process of claim 1 wherein the pre-treatment of the aqueous phase comprising ferrocyanide (V) which is recovered from an oxidative phenolic coupling reaction comprises extracting the aqueous phase with an organic solvent.

6. The process of claim 1 wherein the pre-treatment of the aqueous phase comprising ferrocyanide (V) which is recovered from an oxidative phenolic coupling reaction comprises filtering the aqueous phase.

7. The process of claim 1 wherein the catholyte comprises an alkali metal hydroxy or an alkali metal salt (e.g. KOH, K_2CO_3, $KHCO_3$, KCl, KCN) solution having a concentration in the range of from 0.0001 to 1 M.

8. The process of claim 1 wherein the anodic electrode is graphite; and the cathodic electrode is selected from the group of copper, nickel, stainless steel and graphite.

9. The process of claim 1 wherein the electrical power applied to the divided electrochemical cell has a voltage between 2 V and 2.6 V.

10. The process of claim 9 wherein the voltage is 2.6 V +/- 0.1V.

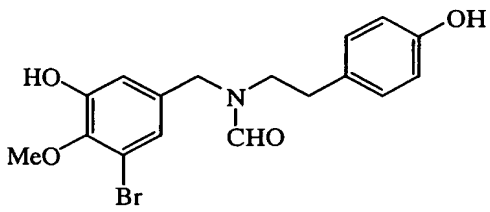
11. The process of claim 1 wherein the anolyte and catholyte are kept at a temperature of 50°C or more.

12. The process of claim 1 further comprising one or all of the monitoring steps selected from the group of
- recording of the current passing through the divided electrochemical cell;
- recording of the ferrocyanide (V) concentration decay;
- recording of the ferricyanide (IV) concentration accumulation;
- recording of the apparition of free cyanide (CN^-); and
- recording of the conductivity of the catholyte.

13. An aqueous phase comprising ferricyanide (IV) obtainable by a process as described in claim 1.

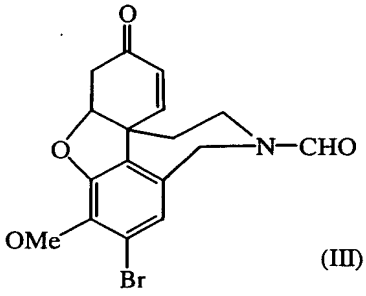
14. Use of an aqueous phase comprising ferricyanide (IV) as described in claim 13 for effecting an oxidative phenolic coupling reaction on substrates susceptible to such reaction.

15. The use of claim 14 wherein the oxidative phenolic coupling reaction is conducted on the substrate of formula (II)



(II)

yielding a compound of formula (III)



(III)

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